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CEYLON.



# ADMINISTRATION REPORTS, 1915.

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PART IV.—EDUCATION, SCIENCE, AND ART.

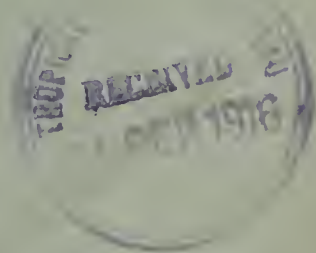
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## MEDICAL.

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REPORT OF THE HON. DR. G. J. RUTHERFORD, M.R.C.S., L.R.C.P.,

*Principal Civil Medical Officer and Inspector-General of Hospitals.*





MEDICAL.

REPORT OF THE HON. THE PRINCIPAL CIVIL MEDICAL OFFICER  
AND INSPECTOR-GENERAL OF HOSPITALS FOR 1915.

I HAVE the honour to submit the Medical Report on the health and sanitary conditions of the Island for the year ended December 31, 1915.

SECTION I.—POPULATION.

2. The estimated population on December 31, 1915, was 4,424,300, inclusive of immigrant coolies, but exclusive of military and shipping ; of these, 7,560 were Europeans, exclusive of those who left the Island for military purposes. The population shows an increase of 107,278 over 1914, and an increase of 162,255 over the estimated population on December 31, 1913.

SECTION II.—PUBLIC HEALTH.

3. The total number of births registered during the period was 160,950, in the proportion of 37 per 1,000 of the population per annum. The deaths registered during the same period numbered 109,819, and were equal to a rate of 25·2 per 1,000. Compared with the previous twelve months, the birth-rate shows a decrease of 1·73 per 1,000. The death-rate shows a decrease of 7·48 per 1,000.

4. I submit herewith the number of deaths registered under the respective classes of diseases for the twelve months under review :—

I.—General diseases :—			
(a) Epidemic diseases	..	..	6,195
(b) Septic diseases	..	..	143
(c) Tuberculous diseases	..	..	4,212
(d) Venereal diseases	..	..	125
(e) Cancer or malignant diseases	..	..	408
(f) Other general diseases	..	..	9,226
			20,309
II.—Diseases of the nervous system and organs of special sense	..	..	13,511
III.—Diseases of the circulatory system	..	..	912
IV.—Diseases of the respiratory system	..	..	8,030
V.—Diseases of the digestive system	..	..	18,902
VI.—Non-venereal diseases of genito-urinary system and annexa	..	..	711
VII.—The puerperal state	..	..	3,750
VIII.—Diseases of the skin and cellular tissues	..	..	8,410
IX.—Diseases of bones and organs of locomotion	..	..	13
X.—Malformations	..	..	12
XI.—Diseases of early infancy	..	..	6,017
XII.—Old age	..	..	3,518
XIII.—Affections produced by external causes	..	..	2,423
XIV.—Ill-defined diseases	..	..	23,301

5. The following diseases under the various heads are the most notable causes of death :—Dysentery (3,426 deaths), phthisis (3,856 deaths), infantile convulsions (11,484 deaths), diarrhœa (10,905 deaths), pneumonia (4,246 deaths), anchylostomiasis and its sequelæ (2,070 deaths), dropsy (2,919 deaths), anæmia (3,600 deaths), intestinal parasites (2,925 deaths), puerperal septicæmia (2,097 deaths), malarial fever (1,101 deaths), enteric fever (390 deaths), rickets (3,875 deaths), tetanus (321 deaths), and rabies (51 deaths). 17,886 deaths were attributed to pyrexia of unknown origin.

6. *Deaths due to Preventable Diseases.*—The total number of deaths occurring during the year was 109,819, as compared with 136,831 in 1914 and 119,956 in 1913. Of this number, 12,494 were due to preventable diseases. This includes enteric fever, phthisis, anchylostomiasis, puerperal septicæmia, malaria, cholera, intestinal parasites, and rabies, but does not include the large number of deaths from diarrhœa and infantile convulsions.

7. *Infantile Mortality.*—The infantile mortality in the thirty-three principal towns during the period was equal to a rate of 237 per 1,000, as compared with 255 per 1,000 for the thirty-two principal towns during the previous period, and 249·3 per 1,000 for the penultimate period.

8. *The Health on Estates.*—The mean birth-rate on estates for the year ended December 31, 1915, was 32·3 per 1,000 and the death-rate 35·4, as compared with a birth-rate of 39·4 per 1,000 and a death-rate of 42·9 per 1,000 in the previous period. The principal causes of death were debility (3,141), diarrhœa (2,148), dysentery (1,786), anchylostomiasis (1,679), dropsy (363), anæmia (101), pneumonia (1,475), infantile convulsions (1,253), and other diseases (4,183).



*Principal Diseases.*

9. *Malaria*.—The year was a remarkably healthy one as regards this disease. The number of patients treated at the hospitals and dispensaries of the Island for the twelve months ending December 31 was 485,082; of these, 8,764 were treated in hospitals and 476,318 at dispensaries as out-patients, as compared with 14,208 in hospitals and 758,156 at dispensaries in 1914, showing a decrease of 5,444 and 281,838, respectively. The total number of cases treated was as follows :—

		In Hospitals.	In Dispensaries.
Western Province	.. ..	2,242	52,792
Central Province	.. ..	1,278	53,897
Southern Province	.. ..	591	40,725
Northern Province	.. ..	1,500	74,388
Eastern Province	.. ..	467	66,027
North-Western Province	.. ..	742	97,130
North-Central Province	.. ..	334	38,774
Province of Sabaragamuwa	.. ..	875	33,550
Province of Uva	.. ..	735	19,035

The issue of free quinine for prophylactic purposes during the year under review was less than in previous years, 104,975 ounces of quinine being issued, as against 182,904 ounces in 1914 and 109,992 ounces for the eighteen months ended December 31, 1913. The decrease in the incidence of malaria may in part be due to increased knowledge, with improvements in village sanitation, due to the starting of a trained Sanitary Department, who, by the agency of lectures, demonstrations, and pamphlets, have to some extent enlightened the people as to the nature, causation, and prevention of malaria; and also to the advantages and benefits of a systematic use of quinine prophylactically and curatively in villages, schools, and jails, to pioneer labourers, and to coolies on many estates in the malarial zone. The advantages and benefits of estate hospitals and dispensaries, and the greater attention paid by planters to the medical requirements and sanitary surroundings of their labour force, is beginning to be evidenced by a lessened incidence of malaria in the low-country plantations.

I herewith submit the draft return suggested by Sir Ronald Ross :—

*Return of Malarial Fever, Blackwater Fever, Yellow Fever, Filariasis, and Dengue during the period from January 1, 1915, to December 31, 1915.*

1. Name of Colony	.. ..	Ceylon
2. Total area ..	.. ..	23,331½ square miles
3. Estimated population :—		
(a) Total ..	.. ..	4,424,293*
(b) Europeans	.. ..	7,560
(c) } Other races	.. ..	4,416,733
(d) }		
(e) }		
4. Births during the year 1915 :—		
Total births	.. ..	160,950
5. Deaths during the year :—		
(a) Total deaths	.. ..	109,819
(b) Deaths ascribed to general fevers	.. ..	19,378
(c) Deaths ascribed to blackwater fever	.. ..	—
(d) Deaths ascribed to yellow fever	.. ..	—
6. Government hospitals :—		
(a) Number of such hospitals	.. ..	78
(b) Total during year	.. { Admissions	.. 76,432
	.. { Deaths	.. 7,317
(c) Malarial fever	.. { Admissions	.. 8,764
	.. { Deaths	.. 285
(d) Blackwater fever	.. { Admissions	.. —
	.. { Deaths	.. —
(e) Yellow fever	.. { Admissions	.. —
	.. { Deaths	.. —
(f) Filarial diseases	.. { Admissions	.. 44
	.. { Deaths	.. —
(g) Dengue ..	.. { Admissions	.. 56
	.. { Deaths	.. —
7. Government dispensaries :—		
(a) Number of such dispensaries	.. ..	427
(b) Total attendances during 1915	.. ..	1,228,916 persons
(c) Attendances for malaria	.. ..	476,318
(d) Attendances for filarial diseases	.. ..	105
(e) Attendances for dengue	.. ..	30
8. Medical service :—		
(a) Number of Government medical officers	.. ..	157†
(b) Number of special health officers	.. ..	6‡
(c) Number of other registered medical practitioners	.. ..	294

\* Exclusive of military and shipping.

† Exclusive of Government apothecaries who are registered.

‡ There were also a senior sanitary officer, a junior sanitary officer, and 54 sanitary inspectors in the new Sanitary Branch.

9.	Schools :—			
	(a) Number of Government and State-aided schools	..	2,886	
	(b) Number of scholars registered in these schools	..	352,878	
	(c) Average daily attendances	..	239,953	
10.	Estates employing unindentured labourers :—			
	(a) Number of such	..	2,382	
	(b) Number of unindentured labourers employed	..	607,700	
	(c) Number of hospitals and dispensaries on such estates	..	54 hospitals, 353 dispensaries	
	(d) Total deaths among such labourers	..	16,396	
	(e) Total admissions and attendances at hospitals and dispensaries	..	86,784	
11.	Estimated revenue of Colony :—			
	Total during the year	..	Rs. 57,680,000	
12.	Estimated expenditure of Colony :—			
	(a) Total during year	..	66,555,207	
	(b) Annual medical and sanitary expenditure	..	1,245,773	
	(c) Upkeep of Government hospitals and dispensaries	..	1,280,390	
	(d) Total salaries and allowances of medical officers	..	1,652,636	
13.	Towns under Municipalities or Local Boards :—			
	(a) Number of such	..	33	
	(b) Total population	..	585,687 on June 30, 1915	
	(c) Total revenue	..	} Figures not available	
	(d) Total medical and sanitary expenditure..	..		
14.	Additional information to be given on the following points :—			
	(a) Is there any legislation in force against the breeding of mosquitoes in premises ?	..	The Nuisances Ordinances	
	Number of notices, convictions, and warnings during the year	..	1,810 prosecutions were instituted, 1,641 convictions	
	(b) Number of persons under the age of 15 examined for enlarged spleen	..	41,451	
	Where was this done ?	..	At the various hospitals, dispensaries, and schools	
	(c) Percentage affected	..	33·8	
	Does Kala-azar exist ?	..	Only to a slight degree	
	Number of persons examined for filarial diseases	..	149	
	Where was this done ?	..	These were actual cases treated in hospitals and dispensaries	
	Percentage affected	..	Not available	
	(d) Any large works for surface drainage of towns or reclamations of marshes ? Approximate cost	..	None	
	(e) Number of men employed in towns and villages for petty anti-mosquito works. Approximate cost	..	Most Local Board towns employ 2 or 3 men	
	(f) Amount of Government quinine sold or distributed gratis during the year	..	104,975 oz., costing Rs. 88,016·08	
	Agencies employed	..	Hospitals, dispensaries, schools, and headmen	
	(g) Is quinine distributed regularly in schools ?	..	Yes ; quinine was distributed regularly in 602 schools	
	(h) Measures taken against these diseases on estates employing unindentured labour	..	General improvement in sanitation and quinine prophylaxis	
	(i) Any steps regarding the housing of the poor ?	..	There is a vagrants' home in Colombo	
	(j) Any exceptional increase or decrease of these diseases recently noticed ?	..	Apparently a decrease in malaria	
	(k) Any other remarks on the subject ?	..	See introduction	

Spleen Census.

Number of persons under 15 years of age examined	..	41,451
Total enlargements	..	14,011
Spleen rate	..	33·8

Note.—The spleen rate of the previous period was 43·9 in 54,874 examinations.

The following are the figures in the separate Provinces :—

	Number Examined.	Total Enlargements.	Spleen Rate. Per Cent.
Western Province	6,975	769	11·02
Central Province	5,032	789	15·6
Southern Province	4,706	1,286	27·3
Northern Province	4,252	1,750	41·1
Eastern Province	5,543	1,977	35·6
North-Western Province	4,627	2,876	62·1
North-Central Province	3,165	1,804	56·99
Province of Sabaragamuwa	3,534	1,333	37·7
Province of Uva	3,617	1,427	39·4
	41,451	14,011	33·8



10. *Plague*.—52 cases of plague were treated in the medical institutions of the Island in 1915, with a mortality of 32, as compared with 437 cases with 401 deaths in 1914. This disease was first definitely recognized in Colombo in January, 1914. An extensive epizootic among rats in the crowded localities of the city of Colombo had evidently been introduced from India. An energetic anti-rodent campaign, combined with systematic sanitary improvements on the part of the sanitary executive, both urban and rural, probably accounts for the very marked drop in the incidence and mortality in 1915. 37 cases were admitted to the Infectious Diseases Hospital, Colombo, and of these, 10 cases recovered, indicating that the type of the disease was less malignant. 4 cases of plague were admitted to the Infectious Diseases Hospital from the port of Colombo, viz., 2 on vessels from Calcutta, 1 from Port Said, and 1 from Hong Kong. 3 cases occurred in the Panadure district, all imported from Colombo, 1 of which was fatal; and 3 in the Kalutara District, all fatal. 9 cases occurred at Talaimannar among passengers to India from Colombo by train; 1 attendant on these cases was attacked. Out of this total of 10, only 2 cases were fatal.

11. *Cholera*.—Ten cases of cholera were admitted to the Infectious Diseases Hospital, Colombo, with 1 death. All of these were from vessels in the port of Colombo. One case (an Indian cooly) occurred in the Ragama Camp in July. No cases of this disease occurred in the rural districts or outstation towns during the year, excepting in the Northern Province, where 9 cases occurred in Talaimannar, originating from infection introduced from Dhanushkodi, in South India, where the disease was epidemic, the victim being a cargo cooly on the mail boat. The disease spread to the Public Works Department cooly lines, and was carried by an absconding contact to Pesalai, about halfway between Talaimannar and Mannar. This case was found by a Catholic parish priest in front of his church. The priest was also attacked by the disease, but recovered. The infection was spread to Mannar by railway coolies, and 2 fatal cases occurred at that town. Of the total of 19 cases for the Island, the mortality was 5. This compares favourably with the incidence and mortality of the disease in the year previous, when a total of 55 cases with a mortality of 28 occurred, the disease having broken out in centres in the Western, Southern, and Central Provinces. Total cases admitted to hospitals was 16, while 2 cases were treated at outdoor dispensaries.

12. *Smallpox*.—An extensive and widespread epidemic, consisting of 409 cases with 103 deaths in 1914, continued through the year under review, resulting in 451 cases with 108 deaths in various hospitals of the Island. 14 cases were treated at dispensaries; 353 cases were admitted to the Infectious Diseases Hospital, Colombo, 16 cases being landed from ships in the harbour. An epidemic of 22 cases, with 7 deaths, occurred at Kalutara; 8 cases, with 2 deaths, at Negombo. Cases also occurred in Avissawella, Moratuwa, Henaratgoda, Hanwella, Padukka, &c. The total for the Western Province was 422 cases, with 113 deaths. In the Central Province smallpox, which started in Kandy in December, 1914, continued till April, 1915, resulting in 42 cases with 7 deaths, giving rise to outbreaks in the planting districts Wattagama, Madulkele, Deltota, and Galagedara. 27 cases were admitted to the Infectious Diseases Hospital, Galle, 7 of whom died; and a small epidemic occurred at Hikkaduwa, near Galle, with 7 cases and no mortality. In the Northern Province 10 cases, with 3 deaths, occurred at Point Pedro, the infection being introduced by the tindal of a native vessel from Cuddalore, South India. Only one case occurred in the Province of Sabaragamuwa (on an estate), and prompt measures prevented any spread of the disease in the district. In the North-Western Province there were five outbreaks of smallpox at different centres in the Kurunegala, Chilaw, and Marawila districts, all more or less simultaneous, the infection in four outbreaks being traceable to Colombo and in one case to Kandy. The number of cases admitted to hospitals in this Province was 2.

13. *Enteric Fever*.—394 cases of enteric occurred within the Municipality of Colombo during the year under review, and 181 in the Western Province generally. 46 cases occurred in the Southern Province, mostly in Galle. In Jaffna an outbreak occurred among the riot prisoners, over a 1,000 of whom were sent from Colombo; altogether 41 cases occurred among these, with 16 deaths; the patients were treated in the Infectious Diseases Hospital, Jaffna. In addition to these, 10 cases, other than prisoners, were treated at the Jaffna Hospital. 6 cases occurred in the Eastern Province, chiefly in Batticaloa, where the victims were mostly European residents. 7 cases were treated in the North-Western Province, at different hospitals. Probably the incidence of the disease was considerably more than the above figures indicate, and many of the fatal cases classified as malaria by vedaralas in this Province may be due to enteric. The total number of cases treated in the hospitals and dispensaries of the Island in 1915 was 427 in hospitals, with 124 deaths, and 162 cases at dispensaries.

14. *Dysentery*.—The total number of cases treated in the hospitals of the Island during 1915 was 2,873 with 571 deaths, as compared with 3,435 with 859 deaths in 1914. At dispensaries 9,243 cases were treated during the year, as against 19,406 in 1914. There was no extensive epidemic of this disease in any particular locality during the year. Doubtless a large number of cases diagnosed as diarrhoea may have been due to the causative agents of dysentery, it being now recognized that both the amoebic and the bacillary form of the disease may occur without the pathognomonic and characteristic symptoms usually associated with the term “dysentery.” Its prevalence in the Eastern and North-Central Provinces indicates its dependence upon unsatisfactory and contaminated water supplies. It was prevalent also on estates in the Province of Sabaragamuwa, and among the labourers in gem pits and plumbago mines. 430 cases were reported by sanitary inspectors in sanitary board towns and in villages in the Western Province. The increased use of emetine as a curative agent, and the improvements in urban and rural provision for the disposal of excreta, will, it is hoped, be manifested in a progressive decrease in the occurrence of this disease. I commented in last year’s report on the marked decrease in the case-incidence and mortality of dysentery in the Ceylon jails, and pointed out how the mortality was reduced from 7·13 in 1909 to 1·3 in 1914, after the introduction of the use of emetine combined with the fly-proofing of wards, the latter measure eliminating to a certain extent the insect factor in the conveyance of the disease. Epidemics of the disease are promptly dealt with by the medical and sanitary officers of the districts, and so far invariably with satisfactory results.

15. *Leprosy*.—The total number of cases treated in all hospitals in 1915 was 579, with a mortality of 66. 7 cases were treated at dispensaries. 402 cases of this disease remained at the end of 1915 at the Hendala Leper Asylum, of whom 318 were males and 84 females; 52 of these cases were admitted during the year, 36 being from the Western Province, 2 from the Central, 5 from the Southern, 2 from



the North-Central, 1 from Sabaragamuwa, and 6 from Uva. There were 61 deaths at the Asylum, 49 males and 12 females. 47 lepers in different parts of the country are awaiting admission to the Hendala Asylum. In the Eastern Province there are 168 cases of the disease on the register; 31 cases are accommodated in the leper wards attached to the Kalmunai Hospital. The operations in connection with the establishment of a leper settlement at Mantivu, a small island on the Batticaloa lagoon, have been suspended temporarily.

16. *Anchylostomiasis*.—Altogether 5,762 cases of this disease were treated in hospitals in 1915, with a mortality of 1,102, as compared with 6,529 cases with 1,455 deaths in 1914. 3,974 cases were treated at dispensaries. This disease, which a few years ago was almost exclusively confined to the Indian immigrant coolies on estates, appears to be extending among indigenous villagers, large numbers of whom work on estates more or less regularly in different planting districts, or live in the neighbourhood of estates; and 2,698 cases were treated in the outstation hospitals and dispensaries of the Western Province during the year 1915, in addition to 315 treated in the General Hospital, Colombo.

In the Central Province 591 cases were treated in hospitals and dispensaries. A systematic campaign against this disease, from which I expect great results, has been started by Dr. J. E. Snodgrass, of the Rockefeller Institute, United States of America, assisted by Dr. Fonseka, of the Civil Medical Department, with 6 microscopists, the sphere of their labours in the first instance being the Matale District.

In the Southern Province 462 persons were treated in hospitals and 850 at dispensaries; in Uva 520 cases in hospitals and 210 at dispensaries; in Sabaragamuwa 1,448 in hospitals and dispensaries; in the Eastern Province 197 cases; in the Northern Province 19 cases; in the North-Western Province 199; in the North-Central Province 39 cases. The systematic use of anthelmintics, such as beta-naphthol and thymol, at estate dispensaries and hospitals, and the increasing attention that is being paid to the sanitary condition of estate cooly lines, is beginning to show good results in lessening the disease. The provision of latrines in connection with cooly lines on estates has been tried on certain estates in the low-country, and shows most encouraging results, the superintendents of such estates stating that, though at first the coolies looked askance at the new departure, they soon overcame their prejudices, and that those inhabiting lines not yet provided with latrines were persistently begging to have them provided. Experience points to the fact that anchylostomiasis may be almost completely stamped out by systematic and persistent attention to the conservancy of cooly lines and villages, if combined with patient and systematic treatment with specific anti-parasitic remedies. And the general improvement in the sanitation of the Island, now occupying the attention of members of the medical and sanitary departments, municipalities, local and sanitary boards, and superintendents of estates, make me hope that, as time goes on, there will be a marked decrease in the incidence of this and other preventable diseases.

17. *Diphtheria*.—The number of cases treated in the Island during 1915 was 3, with 1 death. The disease is rare in Ceylon. Those that occurred were imported cases.

18. *Chickenpox*.—The total number of cases treated was 598 in hospitals, with no deaths, and 881 at dispensaries.

19. *Parangi (Frambæsia, or Yaws)*.—The total number of cases treated in the hospitals of the Island in 1915 was 3,175, with 22 deaths, as compared with 4,603 cases and 31 deaths in 1914. The number of cases treated at dispensaries was 40,950. It is much to be regretted that the excellent results obtained in the treatment of this disease by Salvarsan, "606," could not be continued during 1915, owing to failure of supplies due to the war. In the previous year I was able to report that the use of Salvarsan was almost universal in the principal hospitals. As substitutes, arseno-benzol and arsenious iodide were used. The latter, as the result of experiments carried out by Dr. R. L. Spittel, F.R.C.S., of the General Hospital, Colombo, was found to be efficacious. Though the cure was neither so complete or so rapid as that effected by Salvarsan, the drugs gave satisfactory results in a large proportion of cases. This treatment, involving as it does second and subsequent injections, led to disappointment in some cases, as many patients insisted on leaving hospital before satisfactory amelioration had been secured. Illustrating the efficacy of specific treatment, it is gratifying to note that the Medical Officer of Dambulla (this being the centre of a large parangi-stricken region) reports that there are very few cases of the disease within a radius of 50 miles, all having come under treatment since 1914.

20. *Cancer and Sarcoma*.—212 cases with 34 deaths occurred during the year under review, as compared with 139 cases and 25 deaths in the previous year; 12 cases were treated at dispensaries.

21. *Tuberculosis of the Lung (Phthisis)*.—The number of cases of this disease treated in the various medical institutions of the Island in 1915 was 1,355 with 534 deaths, of which 471 were treated at the General Hospital, Colombo, with 234 deaths. 145 cases were treated at dispensaries. An anti-tuberculosis institute was built in Colombo from money provided by the King Edward VII. Anti-Tuberculosis Fund, and will be opened shortly. The building of the sanatorium kindly donated by Mr. A. E. de Silva is continuing, and it is hoped it will be completed in 1916. A hospital for chronic cases is being established at Ragama, the Government having handed over to my Department the buildings that were used as a quarantine camp before the opening of the segregation camp at Mandapam, in South India. These are being put in repair, and it is hoped will be ready for occupation by the beginning of the next financial year. The accommodation will be for about 200 cases.

22. *Vaccination*.—The number of primary vaccinations performed during the year was 141,040, of which 128,694 were successful and 2,377 unsuccessful, and in 9,969 the results were unknown. The percentage of successful vaccinations to total operations was 91 per cent., as compared with 98.98 in 1914. There are 9 inspectors of vaccination and 135 vaccinators employed.

23. *The Government Vaccine Establishment*.—Seed lymph for the vaccination of calves was, as in previous years, obtained from the Lister Institute of Preventive Medicine, London. 401 calves obtained from a contractor were used for procuring vaccine required for the Colony. 395 calves were returned to the contractor. 190,962 tubes of calf lymph were issued to the different vaccinators throughout the Island during the year, and a large quantity stored as a reserve supply. 22,605 tubes were issued to the Colombo Municipality and 2,862 tubes were sold, realizing the sum of Rs. 2,519, which was



credited to Government. It is gratifying to report that 98·33 per cent. of the primary vaccinations effected by the glycerinated calf lymph issued from the Government Vaccine Establishment were successful.

24. *Port Health Precautions, Colombo.*—The following table shows the ports from which cases of infectious diseases were landed at Colombo :—

			Cholera.		Smallpox.		Plague and Suspected Plague.		Total.
Calcutta	..	..	5	..	13	..	2	..	20
Rangoon	..	..	—	..	1	..	—	..	1
Port Said	..	..	—	..	—	..	1	..	1
Yokohama	..	..	—	..	1	..	—	..	1
Alexandria	..	..	—	..	1	..	—	..	1
Singapore	..	..	—	..	—	..	1	..	1
Hong Kong	..	..	1	..	—	..	—	..	1
Total ..			6		16		4		26

No case of infectious disease was imported from Tuticorin during the year. 93,259 persons were disinfected at the Port Disinfecting Station, 51,819 being passengers from infected localities; 41,440 being cargo and coal coolies, tally clerks, &c., working on vessels from infected ports or on vessels on which infectious disease had occurred; and 4,825 estate coolies and 28,221 miscellaneous deck passengers arrived from Tuticorin, the ports of Ammapatam, Tondi, and Paumben being closed for passenger traffic during the year. Rs. 10,678·50 was realized and credited to Government from the sale of bills of health. 2,342 steamers and 203 native vessels arrived at the port of Colombo. 26 vessels were placed in strict quarantine for infectious diseases on board, and 160 patients suffering from various infectious diseases were landed and sent to the Infectious Diseases Hospital during the year.

25. *Lunacy.*—The numbers of insane treated in the Colombo Lunatic Asylum in 1915 were 717 males and 419 females, totalling 1,136, of which 202 males and 108 females were admitted during the year. 110 males and 55 females were discharged during the year. There were 74 deaths. The largest number present on any one day in the year was 903, and the lowest 837. 237 cases of suspected insanity were sent to the asylum for observation, of which 191 were admitted to the asylum as insane. The accommodation afforded by the present building is inadequate, but land is being acquired for a new building, which it is hoped to commence in the next financial year.

### SECTION III.—METEOROLOGICAL CONDITIONS AND THEIR RELATIONSHIP TO DISEASE.

26. The temperature is reported to have been higher than normal for the greater part of the year, especially in the northern and eastern parts of the Island. The rainfall during the south-west monsoon exceeded the average, was in slight excess in the hill districts and deficient elsewhere. Floods occurred in Sabaragamuwa, but not to the extent of recent years. The evil influence of these conditions upon the health of the people, as indicated in the causation of malaria, would appear to be less than in previous years.

### SECTION IV.—GENERAL SANITARY CONDITION OF THE COLONY AND OF THE CHIEF TOWNS.

27. During the previous year a certain number of sanitary inspectors, after a full course of training in the Sanitary Branch of the Department, under the supervision of Dr. K. McGahey, were posted to different local and sanitary board towns and districts. These officers have worked satisfactorily in inspecting, supervising, and controlling such sanitary measures as reduced expenditure on works has rendered possible. In 1915 the Sanitary Branch undertook the task of instructing headmen in certain selected districts in the Western Province. Five inspectors were placed in each centre, and 56 headmen received instruction on the primary essentials of sanitation, with appropriate practical demonstrations. A staff of coolies, paid by Government, systematically effected such measures as were indicated by the conditions of the places selected for demonstration. The Senior Sanitary Officer reports that 53 of these headmen passed an examination in sanitation, which reflects most creditably on the interest taken by them in the matter. Thanks also to the interest taken by the Government Agent, the Hon. Mr. J. G. Fraser, in these sanitary campaigns, some substantial progress has been made in awakening the people to an idea of the benefits of cleanly and sanitary surroundings. I agree with the Senior Sanitary Officer in taking a hopeful view of the benefits likely to result from continued and widespread efforts in the matter of instruction and the demonstration of primary essential hygienic principles. Detailed surveys of sanitary board towns have been made during the year by the engineer attached to this branch of the Department, and type plans provided for wells, markets, latrines, &c., for the guidance of sanitary inspectors where building applications have to be considered. 5,601 rats were caught and destroyed after examination bacteriologically for plague. All were plague-negative. 115,252 premises were inspected by the officers of the Sanitary Department, and 31,654 of such were found insanitary. 14,829 mosquito-breeding places were located. 1,810 prosecutions were instituted by the officers of the Department in respect of breaches of sanitary laws and regulations, 1,641 of which resulted in convictions; fines amounting to Rs. 7,079·25 were recovered. 207 houses were disinfected for infectious disease, and 320 wells on account of enteric and dysentery.

28. *Colombo.*—A report on the sanitary condition and requirements of the city of Colombo is furnished by the Medical Officer of Health for the Municipality. Sporadic outbreaks of plague occurred, and a continuation of the epidemic of smallpox from the previous year. No epidemic of cholera occurred in the city during the year, contrasting in this respect favourably with the previous year. Of the 10 cases of cholera admitted to the Infectious Diseases Hospital, 6 were landed from ships in port.

29. *Kandy.*—The town is well drained, and has a satisfactory water supply. The sanitary requirements are in the hands of the local Municipality. Refuse is incinerated at some distance outside the municipal limits, and night soil buried in dépôts in a satisfactory manner.



30. **Galle.**—The drainage of this town leaves much to be desired, and is an important and urgent question, to which, doubtless, attention will be paid when funds permit. The water supply from the Hiyare reservoir has improved during the year, having less foreign matter in suspension.

31. **Jaffna.**—The provision of proper surface drainage, efficient conservancy, and a satisfactory water supply are very desirable. The houses and compounds are kept cleaner, and the local sanitary authorities prosecute more rigorously persons guilty of neglect in this particular. The high eadjan fences obstruct the circulation of air, and some localities are overcrowded.

32. **Batticaloa.**—The absence of a proper system of drainage, and of a suitable water supply, render the sanitary condition of this town unsatisfactory. The surface wells are liable to pollution during the rains. A scheme for conducting a water supply from the Bar is now receiving attention. The scavenging is satisfactorily performed, but there is considerable fæcal pollution of the soil in the poorer and more crowded neighbourhoods.

33. **Anuradhapura.**—Considerable improvements have within recent years been made in the drainage of this town. The water supply is unsatisfactory, the main supply being from Tissawewa tank, and liable to pollution. Scavenging is satisfactory, and the disposal of excreta well carried out.

34. **Kurunegala.**—The drainage is unsatisfactory ; only certain parts of the town are provided with cemented drains, and some of these are defective. The water supply is most unsatisfactory, and in dry weather there is considerable scarcity owing to wells drying up. The Local Board is considering a scheme for conducting water from some neighbouring hills. Scavenging and disposal of excreta are fairly satisfactory, and the drainage of swampy land and filling up of hollows and destruction of jungle and scrub receive attention from the Local Board. The existence of large tracts of paddy fields intersecting the town will always render sanitation a difficult problem in this town, the fields being breeding places on a vast scale for anophelines, as has been proved and demonstrated within recent years.

35. **Badulla** has an abundant and wholesome water supply. The drainage is fairly good, and the drains frequently flushed. Cesspits are being replaced by the dry-earth system, excreta and scavengings are well disposed of, and public markets and public latrines are well kept.

36. **Ratnapura.**—The rainfall in this town exceeds that of any other town in the Island. The water supply is from a reservoir, through a pipe service, but owing to deficiency in pressure some parts of the town on the higher elevations are not served. Certain swamps in the town should be filled in and drained. A drainage scheme that was to have been adopted in 1915 has been postponed owing to lack of funds. The town is clean, night soil disposed of satisfactorily, and markets and public latrines are well looked after.

SECTION V.—GENERAL.

37. *Administrative : Hospitals, Asylums, and Dispensaries.*—There are 78 Government hospitals, in addition to the Lunatic and the Leper Asylums, the number of beds varying from 12 to 497, and they are equipped with the most modern appliances. The other two hospitals referred to in my previous report were closed from January 1, 1915, viz., Clinic for Tropical Diseases in Colombo, and Female Hospital in Kaluwella, Galle. There are also 427 Government dispensaries, 54 estate hospitals, and 353 estate dispensaries. A new dispensary at Kahataruppe, in Uva, was built and opened in the year, with two branch dispensaries. The following new buildings, &c., were completed and opened during the year :—Dispensary buildings at Rattota, Chempianpattu, Murungan, and Anamaduwa ; additional accommodation for lunatics, Kandy Hospital ; male ward, Matale Hospital ; new ward, kitchen, and store, Dambulla Hospital ; new type male and female wards at Nawalapitiya Hospital ; office for the Provincial Surgeon, Ratnapura ; female parangi ward, Kolonna Hospital ; administration block, including nurses' quarters and apothecary's quarters, in Kegalla Hospital. The following new quarters were also completed :—District medical officer's quarters, district medical assistant's quarters, and apothecaries' quarters at Badulla ; district medical officer's quarters, Buttala ; and apothecary's quarters, Avissawella. The following works are progressing but were not completed during the year :—Pimbura Hospital ; Passara Hospital ; Kahawatta Hospital ; Kitulgala Hospital ; quarters for visiting apothecary, Deltota ; quarters for apothecary, Eraur ; administration block, Buttala ; Hambegamuwa dispensary ; and temporary Infectious Diseases Hospital, Haputale.

38. *Infectious Diseases Hospital, Colombo.*—The following table indicates the nature of the cases treated at this institution, with mortality, as compared with previous year :—

Name of Disease.		1914.			1915.		
		Number treated.	Deaths.		Number treated.	Deaths.	
Smallpox	..	270	68	..	353	93	..
Cholera	..	14	4	..	10	—	..
Plague	..	174	139	..	37	27	..
Measles	..	28	—	..	5	—	..
Chickenpox	..	247	—	..	268	—	..
Mumps	..	34	—	..	3	—	..
Diphtheria	..	2	2	..	—	—	..
Dysentery and diarrhœa	..	23	5	..	2	2	..
Scarlet fever	..	—	—	..	1	—	..
Dengue	..	—	—	..	2	—	..
Other diseases	..	65	—	..	58	3	..

A total of 744 cases with 125 deaths occurred at this institution in 1915, as compared with 924 cases with 228 deaths the previous year. A marked reduction in the admission of cases of plague is noticeable, as compared with the previous year, and the absence of mortality among the 10 cases of cholera indicates, as remarked before, a less malignant type of the disease than in 1914. The entire reconstruction of this institution on modern lines, and its removal to a more suitable site, is under consideration.



*The Convict Hospitals and Jails.*

39. The following table indicates the average rate of sick to prisoners in the Colombo and Mahara Convict Establishments :—

Jails.	Average Daily Strength.	Average Daily Sick.	Percentage of Sick to Strength.	Number of Deaths.	Percentage of Deaths to Strength.
Welikada, including Convict Hospital ..	.. 1,626·96	.. 85·63	.. 5·26	.. 104	.. ·2
Mahara Jail ..	.. 841·20	.. 10·87	.. 1·28	.. 31	.. ·009
Hulftsdorp Jail ..	.. 184·88	.. ·48	.. ·48	.. 5	.. ·007
Total in 1915 ..	2,653·04	105·52	7·02	140	·036
Comparison with total in 1914 ..	.. 1,642·38	38·33	5·84	36	·018

Respiratory diseases, dysentery and diarrhoea, and malarial fevers were the most prevalent diseases. The medical requirements of the prisoners are provided for by one senior medical officer in charge of the Convict Establishments, one resident medical officer for the Convict Hospital at Borella, one resident medical officer in charge of the Welikada Jail, and one in charge of the Mahara Jail and Hospital. These are assisted by five apothecaries and one hospital assistant. The considerable increase in sickness during the year is proportionate to the large influx of prisoners convicted in connection with the riots. An outbreak of iritis and conjunctivitis occurred in the Welikada Jail in the year, and an outbreak of enteric in the Jaffna Prison among riot prisoners.

40. *The Police Hospital, Colombo.*—1,142 patients were treated at this establishment, which is restricted for the active members of the Police Force and the subordinates of the Jail Department. There were only 2 deaths, 1 from diarrhoea and 1 from tuberculosis of the lung.

41. *Branch Hospital for Women.*—342 cases of venereal diseases were treated in this hospital, with 1 death, during the year under review. The branch hospital at Galle was closed in 1914, and the patients transferred to the Galle Hospital. At the Female Outdoor Dispensary, Colombo, 28,281 patients were treated, a daily average of 91; of these, 2,964 were Muhammadan females. The hospital is presided over by a lady medical officer.

42. *The General Hospital, Colombo.*—On December 31, 1914, 456 patients remained in the General Hospital, Colombo: 35 in the paying wards and 421 in the pauper wards. 11,145 patients were admitted during 1915: 863 to the paying wards and 10,282 to the pauper section. In the paying section 805 were discharged; 65 died out of the 907 treated during the year; 35 remained in the wards on December 31, 1915. In the pauper section, out of 10,703 under treatment, 8,981 were discharged, 1,138 died, and 584 remained on the last day of the year. The average daily sick in the paying section was 4·99, and in the pauper wards 538·31. The maximum number in the paying wards on any one day during the year was 54, and the minimum 30. The maximum in the pauper wards was 591, and the minimum 456, on any one day. Of the total admissions, 10,282 in 1915, 3,889 were surgical cases and 6,393 medical. 2,197 surgical operations were performed, viz., 1,973 in the pauper section operating theatre and 224 in the paying section theatre. In April, 1915, a new block of six wards, with kitchen, storerooms, &c., was opened for the more chronic cases, replacing the cadjan sheds that were in use. These wards are fully equipped with latrines on modern lines, provided with electric lighting, and consist of airy structures, with tiled roofs, iron supports, and cement floors, and ample verandahs. The new wards accommodate 200 beds. Shortage of accommodation is still felt in the female pauper section, but it is hoped that the proposed transfer of about 60 phthisis cases to Ragama, where accommodation is to be provided, will mitigate this shortage. During the previous year half the pauper section was provided with latrines on the water-carriage system, and the remaining half continued with the old pail and dry-earth system. It is very desirable that these should be abolished in favour of the water system. The receipts from the paying section were Rs. 63,603, and the expenditure Rs. 45,349; and the receipts on behalf of certain patients in the pauper section Rs. 2,591, and the expenditure Rs. 85,184. The expenditure in the two sections covers the cost of diets, fuel, lighting, and equipment, but not of the salaries of the medical and nursing staff, nor cost of drugs, dressings, and appliances.

43. *De Soysa Lying-in Home.*—The total number of cases admitted to this maternity hospital was 1,450, as compared with 1,532 in the previous year. Of these, 1,337 were discharged, 48 died, 27 were transferred to other medical institutions, and at the end of the calendar year 38 remained under treatment. The percentage of deaths was 3·31, as against 3 for the previous year; of these cases, 1,212 were admitted before delivery, 41 after delivery (for complications), and 18 were gynecological cases for special treatment. 21 twins were born, and there were 3 cases of triplets. Altogether 1,085 children were born in the institution, 121 of which were stillbirths and 54 premature. There were 74 paying patients, the receipts under this heading being Rs. 2,615·17.

44. *The Lady Havelock Hospital for Women, and the Lady Ridgeway Block for Children.*—828 cases were treated in the Lady Havelock Hospital, with a mortality of 71. At the Lady Ridgeway Memorial Block 673 children were treated, with 125 deaths. The high mortality rate is due to infants being brought to hospital in a more or less moribund condition.

45. *The Victoria Memorial Eye Hospital.*—The admissions to this institution were 950. 494 operations were performed, 295 being for cataract. 30,202 visits were made, as out-patients, by 10,431 persons, and of these, 1,231 were ear, throat, and nose cases, and 9,200 ophthalmic cases. 661 minor operations were performed on the latter, and 37 on the former. A large number of persons attended for eye-testing and correction of errors of refraction by suitable lenses. There is considerable difficulty in obtaining artificial eyes, owing to the war.

46. *Nursing in Ceylon Hospitals.*—Six European trained matrons and seventeen European trained nurses are employed, in addition to 47 nursing sisters of religious orders. There were also 36



locally-trained matrons and 60 Ceylonese nurses serving in the hospitals. Male and female attendants are also provided in each hospital to assist the nurses. There are two training schools for nurses, one at the Lady Havclock Hospital for 20, and the other at the Kandy Hospital, also for 20 pupils.

47. *Number of Hospital In-patients.*—The total number of patients treated in the hospitals and asylums of the Island in 1915 was 76,432, with a mortality of 7,317.

48. *Number of Out-patients treated at Dispensaries.*—At these institutions the total treated during the year was 1,228,916, who paid 1,851,674 visits.

49. *Surgical Operations.*—5,099 surgical operations were performed in the hospitals of the Colony, with a mortality of 19·5, or 3·8 per cent. Special operations on the eye, ear, throat, and nose, not included in the above, totalled 698. There are special institutions provided for such cases at Colombo, Galle, and Kandy. In the General Hospital, Colombo, there were 2,197 surgical operations performed, with a death-rate of 3·05 per cent.

50. *Victoria Home for Incurables.*—73 patients remained in this institution on December 31, 1914, and 10 were admitted during the year, making a total of 83 cases, of whom 10 died and 1 was discharged, leaving 72 at the end of the year.

51. *The Bacteriological Institute, Colombo.*—At this institution 4,447 specimens were examined, sent from various Government institutions in the Island, and 74 specimens were sent by private practitioners, &c. A sum of Rs. 905·25 was recovered from the latter as fees. Dr. Lucius Nicholls assumed duties as Director of the Institute on November 7, 1915, Mr. Edwin Burgess, who returned from leave, having officiated as Acting Director from February 4, 1915, on Dr. Castellani's resignation.

52. *The Clinic for Tropical Diseases* was closed on the departure of Dr. Castellani.

53. *The Mandapam Quarantine Camp.*—This camp for the medical examination, isolation of infectious cases, and segregation of infected contacts among cooly immigrants and other passengers to Ceylon, *viâ* the Adam's Bridge railway route, was under the medical charge of a single medical officer during 1914, but owing to the increasing passenger traffic it was found necessary to strengthen the medical staff by the appointment of an additional qualified assistant to the medical officer. Ample accommodation is provided for miscellaneous passengers and for coolies, and there was no overcrowding. 47,120 miscellaneous passengers passed through the camp in 1915, among whom 3 cases of cholera and 1 of smallpox occurred, all ending fatally. 89,953 estate coolies passed through the camp during the year under review, as compared with 61,332 the year previous.

54. *The Ragama Quarantine Camp.*—5,022 coolies, including 174 coal coolies (cholera contacts), were under quarantine, detention, and observation during the year in this camp, as against 18,690 the year previous. 500 Annamites, who had been shipwrecked *en route* for Europe, were temporarily accommodated in this camp. 1 case of cholera, 1 of chickenpox, and 1 of mumps were the only infectious diseases.

55. *Ceylon Medical College.*—The following were the attendances and passes at this institution during the last two years :—

Session.	Attendances.		Passes.	
	Medical.	Apothecary.	Medical.	Apothecary.
1915 May to July	.. 123	.. 52	.. 2	.. 7
1914 October to March, 1915	.. 135	.. 57	.. 6	.. 11
1914 May to July	.. 146	.. 66	.. 4	.. 7
1913 October to March, 1914	.. 134	.. 168	.. 8	.. 7

The fees collected and credited to revenue were Rs. 30,051.

56. *The Civil Medical Stores.*—The total cost of drugs, chemicals, dressings, medical appliances, surgical instruments, and cost of repairing of the last named amounted to Rs. 279,034·26 during the year, as against Rs. 468,848·46 in the previous year. Cost of transport to the different hospitals and dispensaries Rs. 3,896·34. During the year, as a consequence of the war, from 20 to 25 per cent. of the ordinary drugs in daily use were very scarce ; in some instances unobtainable, owing to the source of supply in Central Europe being shut off. Limited supplies of some of these drugs from new sources have since been, with difficulty, procured. There has been a very considerable enhancement in the price of drugs generally : some ordinary drugs have risen from 50 to 200 per cent., and some others in large demand in medical practice, such as bromides, emetine, mercury salts, epsom salts, quinine, acetic acid, belladonna preparations, &c., have advanced from 500 to 3,000 per cent. in price. Some drugs, *e.g.*, Salvarsan, are practically unobtainable. At different periods during the year certain drugs were completely out of stock, epsom salts, santonine, chloroform, emetine, carbolic acid, and Salvarsan being examples. Small quantities of these have, however, been coming in at intervals, while large orders on the wholesale dealers have to await attention. The total sum realized by sale of drugs to estates and Government Departments, sale of unserviceable articles, sale of surgical instruments, &c., amounted to Rs. 4,081·65. 100,160 ounces of quinine were purchased at a cost of Rs. 89,313 : 104,975 ounces were issued, costing Rs. 88,016·08.

57. *Inspection.*—Every Government hospital and dispensary is visited each half-year by the Provincial Surgeon. I have also visited many of them, as have also the Government Agents. Unofficial visitors delegated by the Planters' Association paid visits of inspection. As a rule, the inspections are satisfactory, and even minor complaints are few.

58. *Food Supply* is almost entirely obtained from contractors. The contractors are accepted by a special tender board, and, as a rule, the arrangement is very satisfactory, especially as the food is inspected regularly before cooking. The outbreak of the war, which threatened to hamper the smooth working of the arrangements in some cases, has not resulted in any material change in contract rates.

59. *Strength of the Medical Department.*—The following was the strength of the Medical Department during the period :—1 Principal Civil Medical Officer, 1 Assistant Principal Civil Medical Officer, 2 Inspecting Medical Officers, 1 Medical Superintendent of the General Hospital, 1 Medical Superintendent of the Lunatic Asylum, 1 Medical Superintendent of the Leper Asylum, 9 Provincial Surgeons, 142



Qualified Medical Officers, 286 Apothecaries, 9 Inspectors of Vaccination, 135 Vaccinators, including 6 Female Vaccinators, 1 Director of the Bacteriological Institute, 1 Assistant Bacteriologist, 1 Superintendent of the Civil Medical Stores, 1 Senior Sanitary Officer, 1 Junior Sanitary Officer, 1 Assistant Sanitary Officer, 1 Sanitary Engineer, 1 Sanitary Superintendent, 60 Sanitary Inspectors, 6 European Matrons, 18 European Nurses, 4 European Matrons (Religious Sisters), 47 European Nurses (Religious Sisters), 36 Ceylonese Matrons, 60 Ceylonese Nurses, and 40 Pupil Nurses.

60. *Officers on Leave.*—The following officers of the Department obtained leave and proceeded to Europe during the year :—Dr. John Lunn, Inspecting Medical Officer ; Dr. P. J. Kelly, Registrar, Ceylon Medical College ; Miss Anderson, Medical Officer in charge of Lady Havelock and Lady Ridgeway Hospitals ; Dr. T. Ohlmus, Provincial Surgeon ; Dr. H. U. Leembruggen, Medical Officer, Grade I. ; Dr. E. C. Spaar, Dr. H. E. Ekanayaka, Dr. E. A. Blok, Dr. A. E. A. Poulier, Dr. R. W. Willenberg, Dr. J. B. F. Caldera, Dr. E. L. Christoffelsz, and Dr. A. H. Ernst. Of these, six have received temporary commissions in the Royal Army Medical Corps, namely, Drs. Lunn, Kelly, Ohlmus, Leembruggen, Christoffelsz, and Ernst. Sir Allan Perry since he left the Island has been in charge of a general hospital in France. Miss Anderson has been working with the Red Cross Society on service. Dr. Castellani, Director of the Bacteriological Institute, resigned on January 1, 1915, Dr. Lucius Nicholls being appointed to succeed him. The latter officer assumed duties on November 7, 1915.

61. *Changes in the Department.*—I regret to state that Dr. S. L. Anthonisz, Dr. A. C. H. Dickman, Dr. G. C. S. Perera, and Dr. J. L. Obeysekere died during the year. Dr. S. Subramaniam was promoted to Grade I. ; Dr. E. C. Alles, Dr. E. A. Blok, Dr. A. C. A. Fernando, and Dr. K. K. Jacob were promoted from Grade III. to Grade II. ; and eleven new officers were admitted to the Department. The duties of the Inspecting Medical Officer on leave (Dr. J. Lunn) were discharged by Dr. H. Bawa, Provincial Surgeon ; those of Dr. P. J. Kelly by Professor A. Joseph ; and those of the Provincial Surgeon on leave (Dr. Ohlmus) by a senior officer of Grade I.

Sir Allan Perry, who since 1898 had served the Colony as Principal Civil Medical Officer, retired from that office in May, 1915, with three months' leave preparatory to retirement. I take this opportunity of recording the appreciation of myself and the other officers of the Department of the administrative ability, tact, courtesy, and fairness shown by Sir Allan Perry in his dealings with the Department, and of the foresight and progressive nature of his policy regarding matters concerning the medical requirements of the Island.

I was appointed Principal Civil Medical Officer and Inspector-General of Hospitals in his place on May 20, and confirmed on August 20, 1915 ; and Dr. E. Langley Hunt, C.M.G., was appointed Assistant Principal Civil Medical Officer and Inspector-General of Hospitals on August 20.

62. The following statement shows the expenditure and receipts of the Department, inclusive of Medical Aid Estates Branch, for the financial year 1914-15 :—

Expenditure.			Rs.	c.
Personal emoluments	..	..	1,413,509	5
Other charges	..	..	794,647	83
Hospitals and dispensaries	..	..	835,982	67
Total			1,630,630	50
Grand Total			3,044,139	55
Credits.			Rs.	c.
Hospital and dispensary receipts	..	..	136,698	7
Sale of drugs and medical requisites	..	..	13,717	49
Medical aid dues (maintenance and visits)	..	..	164,913	40
Sale of unserviceable and superfluous articles, rent of trees and garden produce, and rent of buildings	..	..	16,159	41
			331,488	37
Nett Expenditure			2,712,651	18

63. *Estate Hospitals and Dispensaries.*—There are 54 hospitals on estates. The number of estate dispensaries has increased by 31, and now number 353. These hospitals and dispensaries are established under provisions of the Medical Wants Ordinance, No. 9 of 1912, and are built and officered at the expense of the estates, receiving free drugs from Government.

64. There were 2,382 estates scheduled to 46 Government hospitals and 115 dispensaries.

65. 17,054 estate labourers were treated in the Government hospitals during the year. Of these, 2,691 died, a death rate of 15·77 per cent. Of the mixed races, 44,978 were treated, of whom 3,718 died, a death-rate of 8·26 per cent.

66. The total number of days the estate labourers stayed in hospital was 435,181, an average of 25·51 days each. Of these, 404,063 were paid for by estates. The total number of days the mixed races stayed in hospital was 679,553, an average of 15·1 days.

The total number of estate labourers treated at the outdoor dispensaries was 69,730. The total number treated on estates was 26,685.

The total number of births reported from estates was 22,413, of which 10,836 were males, 10,275 females, and 1,302 stillborn.

The number of deaths reported from estates was 13,709, of which 6,692 were males, 6,998 females, and 19 in which the sex was not stated.

Colombo, March 29, 1916.

G. J. RUTHERFORD,  
Principal Civil Medical Officer and  
Inspector-General of Hospitals.



APPENDIX.

OPIUM.

SINCE the previous report a set of new rules under the Opium Ordinance, No. 5 of 1910, as amended by Ordinance No. 34 of 1914, was made and published in the *Government Gazette* No. 6,726 of July 9, 1915.

2. The selling price of opium was raised, with effect from March 1, 1915, as follows :—  
  
Eating opium from  $\frac{3}{4}$  cent to 1 cent for 1 grain of opium.  
Smoking opium from 1 cent to 2 cents for 1 grain of opium.
3. The number of opium depôts remains the same, namely, 55.
4. During the year there had been a considerable number of applications for registration as opium consumers, but they have been invariably refused, with the exception of two. Of these, one was a woman who had been sharing her husband's supply, and who is no longer able to do so on account of the death of her husband.
5. A statement of opium sold, and the amounts realized during each quarter of the year, is appended. It will be noticed that the total sales for the year are less than those of the previous year, which is inserted for comparison :—

Statement of Opium sold and Amount realized during each Quarter from January 1, 1915, to December 31, 1915.

During the Quarter.	Eating Opium.					Smoking Opium.					Total realized.	
	Quantity sold.	Amount realized.				Quantity sold.	Amount realized.					
	Grains.	Rs.	c.			Grains.	Rs.	c.				
March 31, 1915 ..	14,110,897	..	117,845	15	..	2,749,950	..	33,889	50	..	151,734	65
June 30, 1915 ..	14,185,484	..	141,858	84	..	1,614,900	..	32,298	0	..	174,156	84
September 30, 1915 ..	14,327,810	..	143,279	35	..	1,544,975	..	30,899	50	..	174,178	85
December 31, 1915 ..	14,025,841	..	140,258	41	..	1,497,765	..	29,955	30	..	170,213	71
Total for 1915 ..	56,650,032		543,241	75		7,406,590		127,042	30		670,284	5
Total for 1914 ..	57,269,671		430,756	26		12,653,025		126,530	25		557,286	51

6. The figures show a decreased consumption of 619,639 grains of eating opium and 5,246,435 grains of smoking opium. The large fall in the sale of smoking opium is mainly due to the raising of the price by 100 per cent., which came into effect on March 1, 1915.
7. The amount realized out of the sale of opium (opium preparations) during the year is Rs. 4,785·68.
8. During the year 1915 85 chests of opium were purchased from India for Rs. 147,398·28, as against 80 chests during the previous year for Rs. 134,500·56.

Colombo, March 29, 1916.

G. J. RUTHERFORD,  
Principal Civil Medical Officer and  
Inspector-General of Hospitals.



